

CLAIMS

1. Use of a blocking element (92,200,300) and a securing element (90,90b,90bb,202,302) in the manufacture of an
10 obturator (50) for use in the treatment of a lung condition in a human or animal by blocking a bronchial tube or tubule.

2. Use of claim 1, in which the lung condition is
15 emphysema.

3. Use as claimed in claim 1 or 2, in which the two elements are separate components, the blocking element serving to seal the tube or tubule against the passage of
20 fluid past the obturator when the obturator is disposed in a bronchial tube or tubule, and the securing element serving to retain the blocking element in position in the tube or tubule.

25 4. Use as claimed in claim 1, 2 or 3, in which the blocking element comprises a substantially cylindrical plug of biocompatible material.

5. Use as claimed in claim 4, in which the plug comprises
30 resiliently deformable closed-cell foamed plastics material, preferably PVC.

6. Use as claimed in any preceding claim, in which the securing element comprises a stent (90,90b,90bb,202,302).
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7. Use as claimed in claim 6, in which the stent has barbs (99) to engage and retain the blocking element.

8. Use as claimed in claim 6 or 7, in which the stent has
40 anchors (101) to retain the stent in a bronchial tube or tubule.

5 9. Use as claimed in claim 6, 7 or 8, in which the stent comprises a crown (90b) of surgical quality steel wire legs in zig-zag formation.

10 10. Use as claimed in claims 7, 8 and 9, in which said
10 barbs and anchors depend from points of the crown.

11. Use as claimed in claim 9 or 10, in which the crown is closed in its circumference.

15 12. Use as claimed in claim 6, 7 or 8, in which the stent comprises a dome (90bb) of surgical quality steel wire legs (91b).

13. Use as claimed in claim 12, when dependent on claim 7,
20 in which said barbs (98b) are formed on the ends of said
legs.

14. Use as claimed in claim 12 or 13, when dependent on
claim 8, in which said anchors (100b) are formed on the end
25 of said legs.

15. Use as claimed in claim 1 or 2, in which the blocking and securing elements are integrally formed from plastics material, and wherein the securing element comprises
30 adhered or fused anchor elements.

16. Use as claimed in claim 1 or 2, in which the securing element comprises a memory metal which is released to its normal expanded shape by a physical parameter when it has
35 been inserted at the proposed location.

17. Use as claimed in claim 16, in which said physical parameter is the passage of electrical current through the securing means.

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18. Use as claimed in claim 1, 2 or 3, in which the blocking element comprises a balloon (200).

19. Use as claimed in claim 18, in which the securing element comprises a stent (202), points (204) of the stent being turned inwardly to captivate the balloon.
- 10 20. Use as claimed in claim 1, 2 or 3, in which the blocking element comprises a diaphragm (300).
- 15 21. Use as claimed in claim 20, in which the securing element comprises a domed stent (302) secured at its point to the centre of the diaphragm, the legs of the stent pressing the diaphragm against the mucosa of a bronchial tube when inserted therein.
- 20 22. A method of treatment of emphysema or other lung conditions or diseases in human or animal patients, the method comprising placing an obturator in a bronchial tube or tubule of the patient so as to seal the tube or tubule against the passage of fluid past the obturator.
- 25 23. A method as claimed in claim 22, in which the obturator is put in place in a patient by use of a delivery device for the obturator, which device is inserted through the mouth and airway of the patient until the proposed placement site is reached, whereupon the device is activated to release the obturator from the device.
- 30 24. A method as claimed in claim 22 or 23, which method employs an obturator of the type manufactured in accordance with any of claims 1 to 21.
- 35 25. An obturator substantially as hereinbefore described with reference to any of the accompanying drawings.